Logistics Technology: The Backbone of Omni-Channel Retail

The consumer’s new fulfillment expectations demand unprecedented visibility and flexibility in the way retailers manage and move merchandise, increasing their need for rugged technology in the logistics environment.

Executive Overview
In terms of inventory management and the logistics of fulfillment, visibility and flexibility are two words that have never before been at such odds with one another.

As the cross-channel fulfillment expectations of the modern consumer grow more demanding and more complex, the maintenance of inventory accuracy—predicated on visibility—is put to an extreme test. Order online/pickup in store, direct-to-consumer fulfillment, and cross-channel returns processing are just a few of the customer conveniences that cross-channel retailers must enable to compete. Yet, this sort of fulfillment and returns flexibility creates an ever-more-challenging environment for the maintenance of enterprise-wide inventory visibility and, subsequently, accuracy.

Retailers are clamoring to feed the service and fulfillment expectations of their consumers with seamless cross-channel and mobile representations of their brands. Meanwhile, many aren’t paying enough due diligence to the back-office systems that make cross-channel consummation of sales work. This paper will examine the need for a rock-solid technology infrastructure to support logistics in the world of omni-channel retail.

Multi-, Cross-, or Omni-channel; A Rose By Any Other Name
While there are important nuances that distinguish multi-channel, cross-channel, and omni-channel retailing, one thing they share in common is the customer’s expectation.

Multi-channel retailers have been successfully transacting with consumers via stores, catalogs, and telephones for more than a hundred years. Until the advent of e-commerce, however, it was standard protocol to operate those channels independently of one another; in many cases, retailers treated them as entirely separate businesses, fulfilling orders and processing returns in channel-specific repositories. Cross-channel inventory visibility wasn’t necessary.
The Internet, smart phones, and tablet computers have empowered consumers and driven change into retailing. Consumers now wield the power of information and connectivity enabled by the Internet. In the shopper’s eyes, the online banner, the catalog banner, and the Internet banner are one brand, one enterprise, and one inventory. To the consumer, placement of the offer is media independent and thus receipt of goods is anticipated with equal ease, speed, and efficiency. Consumers expect retailers to deliver goods as smoothly as they delivered the promotion. View, click, deliver; to the shopper, it’s that simple.

In an attempt to meet consumer expectations, cross-channel retailing was born. Retailers began leveraging any means of cross-channel integration they could find or afford to back up the seamless brand experience they had created with a seamless fulfillment experience. The goal: to build an omni-channel model that can deliver product to consumers based upon their needs, not the location of inventory.

The process is long, technically challenging, and requires changes to legacy systems not previously expected. While the business process and logistics hurdles in the way of an omni-channel environment are many, the improved customer experience and back-end business visibility benefits are great. The key to success is the improvement of inventory visibility and logistics performance with added flexibility across all sales channels.

**Inventory Logistics**
Product logistics within the retail ecosystem presents a mixed bag. Rising e-commerce demand is forcing retailers to equip their distribution centers to handle both case- and item-level fulfillment to both stores and consumers. Some retailers have created dedicated DCs to handle direct-to-consumer business, or category-specific DCs that serve store- and customer-level fulfillment. Still others, including Walmart, are experimenting with hybrid architectures that go so far as to enable stores as same-day fulfillment centers for online orders. The recent Retail Fulfillment Benchmark Report from Retail Systems Research (RSR) illustrates the current state of supply chain design.
As these experiments prove out their efficiencies, it’s clear that flexibility, visibility, and a technology infrastructure that enables them both is a mandate. To allocate according to plan and fulfill in accordance with the consumer’s expectation, warehouse, DC, and, increasingly, store-level associates, must all be equipped with real-time, mobile visibility into inventory and its location. What’s more, they must have the right tools to move inventory to its ultimate destination, whether that’s stores or consumers’ homes.

**Technology: The Backbone of Omni-Channel Retail**

Inventory visibility and flexibility are the key to the omni-channel retail model. Technology is the backbone on which this model is supported. WMS and ERP systems that connect to POS systems must seamlessly provide the information needed for associate or consumer decision making when looking at a purchase. Moreover, the accuracy of the information in these systems must be high. For that to be the case, technology must be deployed in the hands of each person handling product from end-to-end in the supply chain.

Each movement of goods must be detected and registered without the risk of data integrity loss. As in every retail transaction, the final judgment is made when the product is delivered to the consumer. It must be the right product, in the right configuration, delivered at the right time. Failure in any of these criteria renders the shopping experience a failure and dooms the retailer. Therefore, no chances can be taken when selecting technology hardware deployed along the supply chain.
Whether the devices are handheld bar code scanners, mobile computers, or vehicle mounted terminals, their integrity and reliability cannot be questioned. Only truly rugged devices able to withstand repeated drops to concrete, with proper sealing against dust and water, and offering secure communications should be deployed.

There are some logistics operators who consider the use of consumer or non-rugged devices. These items have no place at any point in the retail supply chain. According to the American Express Global Customer Service Barometer survey of 2012, consumers will tell an average of 24 people about their negative service experience, almost twice as many as they would tell about a positive experience. With statistics like that, risking the omni-channel retail experience on inferior hardware has huge ramifications. The selection of technology for deployment in the retail supply chain should ensure completion of the transaction in a manner that supports the retail experience projected by the company brand.

As a worldwide leader in each of the product categories along the retail supply chain, Datalogic can help guarantee smooth operation of an omni-channel retail model. Starting at the beginning of the supply chain with receipt of raw materials using the industry leading PowerScan™ handheld industrial scanner, to the end of it with the transaction at the POS using the industry leading Magellan™ POS scanners, Datalogic can provide the technology backbone to assure success in omni-channel retailing.